

DRAFT SUPPLEMENT TO ISPM NO. 5
(GLOSSARY OF PHYTOSANITARY TERMS)

*Note for members at member consultation: in reviewing this document,
please refer to the IPPC Glossary of phytosanitary terms (ISPM No. 5).*

Supplement No. --

**[PARAGRAPH 1] TERMINOLOGY OF THE CONVENTION ON BIOLOGICAL DIVERSITY IN
RELATION TO THE GLOSSARY OF PHYTOSANITARY TERMS**

[2] 1. Introduction

[3] Since 2001, initiatives have been taken to address, within the framework of the IPPC, the protection of the environment and of biological diversity in relation to the introduction and spread of non-indigenous species. In particular, ISPM No. 11 on pest risk analysis for quarantine pests has been extensively adjusted to ensure that it covers risks arising from pests that primarily affect the environment and biological diversity, including harmful plants in particular. Supplement No. 2 of ISPM No. 5 (*Glossary of phytosanitary terms*) has analysed in detail how the concept of “potential economic importance”, which appears in the definition of a “quarantine pest”, can be understood to cover effects on the environment and biological diversity. This clarification of the scope of the IPPC is now basically understood and accepted by contracting parties.

[4] As a result, there has been a need for relevant terminology concerning the environment and biological diversity for use in ISPMs. The Convention on Biological Diversity (CBD) has proposed a number of such terms and definitions in the framework of its “guiding principles for the prevention, introduction and mitigation of impacts of alien species that threaten ecosystems, habitats or species” (hereafter “CBD Guiding Principles”). However, attempts to incorporate these terms into IPPC language have proved unsuccessful because they are based on different concepts. In particular, the CBD is concerned only with species that are moved by human agency, and its terminology refers only to those species (“alien species”) which have already been moved into an area where they are non-indigenous. This movement is referred to as “introduction”, which accordingly does not include “establishment” (as it does for the IPPC). So it is not possible to include these fundamental CBD terms and definitions directly in the Glossary. Instead they are explained in the present supplement.

[5] 2. Presentation

[6] In relation to each term considered, the CBD definition is provided first. This is followed by a proposed “explanatory definition in IPPC terms”, in which, as usual, Glossary terms are shown in **bold**. These explanatory definitions may also include CBD terms, in which case these are also in **bold** and followed by “[CBD]”. The explanatory definitions constitute the main body of this supplement. Each is accompanied by notes, providing further explanation and clarification of some of the difficulties.

[7] 3. Terminology

[8] 3.1 Alien species

[9] *CBD definition:* a species, subspecies or lower taxon, introduced outside its natural past or present¹ distribution; includes any part, gametes, seeds, eggs, or propagules of such species that might survive and subsequently reproduce

[10] *Explanatory definition in IPPC terms:* an **alien species [CBD]** is an individual² or population, at any life stage, of an **organism** that is non-indigenous to an **area** and that has been **introduced [CBD]**^{3, 4} into that **area**.

[11] *Notes:*

[12] ¹ The qualification concerning “past and present” distribution is not relevant for IPPC purposes because the IPPC is concerned only with existing situations. It does not matter that the species was present in the past if it is present now. The word “past” in the CBD definition presumably allows for the reintroduction of a species into an area where it has (recently) become extinct. Conservationists would not wish such a species to be considered alien. “Recently” is bracketed, because it is not stated explicitly; presumably, “ancient” extinctions, as attested by fossils, would not qualify.

- [13] ² The CBD definition throws emphasis on the physical presence of individuals of a species at a certain time, whereas the IPPC concept of occurrence relates to the geographical distribution of the taxon in general.
- [14] ³ For CBD purposes, an alien has already entered the **area** of concern (see **Introduction** below). For the IPPC, however, pests that have not already entered the area are of great concern, and the term alien is not appropriate. Terms such as “exotic”, “non-indigenous” or “non-native” have been used in ISPMs and can be considered to be synonymous. To avoid confusion, however, it would be preferable to use only one of these terms, in which case “non-indigenous” would be most suitable, especially as it can accompany its opposite “indigenous”. “Exotic” is not suitable because it presents translation problems.
- [15] ⁴ A species that is non-indigenous and has entered an **area** through natural means is not an **alien species [CBD]**. It is simply extending its natural range. For **IPPC** purposes, such a species could still be considered as a potential **quarantine pest**.
- [16] **3.2 Introduction**
- [17] *CBD definition:* the movement by human agency, indirect or direct, of an alien species⁵ outside of its natural range (past or present). This movement can be either within a country or between countries or areas beyond national jurisdiction⁶
- [18] *Explanatory definition in IPPC terms:* **introduction [CBD]** is the **entry** of a **species** into an **area** where it is non-indigenous, through movement by human agency, either directly from an area where the species is indigenous or indirectly⁷ (by successive movement from an area where the species is indigenous through one or several areas where it is not).
- [19] *Notes:*
- [20] ⁵ As formulated, the CBD definition suggests that **introduction [CBD]** concerns an **alien species [CBD]**, and thus a species that has already been **introduced [CBD]**. However, it may be supposed from the text of many of the CBD Guiding Principles that this is not so, and that a non-indigenous species entering for the first time is being **introduced [CBD]**.
- [21] ⁶ The issue of “areas beyond national jurisdiction” is not relevant for the IPPC.
- [22] ⁷ In the case of indirect movement, it is not specifically stated in the definition whether all the movements from one **area** to another must be **introductions [CBD]** (i.e. by human agency, intentional or unintentional), or whether some can be by natural **spread**. This question arises, for example, where a species is **introduced [CBD]** into one **area** and then spreads naturally to an adjoining **area**. It seems that this may be considered as an indirect **introduction [CBD]**, so that the species concerned is an **alien species [CBD]** in the adjoining area, despite the fact that it **entered** it naturally. In the IPPC context, the intermediate country, from which the natural spread occurs, has no obligation to act to limit the natural spread, though it may have obligations to prevent intentional or unintentional **introduction [CBD]** if the importing country concerned establishes corresponding **phytosanitary measures**.
- [23] **3.3 Invasive alien species**
- [24] *CBD definition:* an alien species whose introduction and/or spread threaten biological diversity^{8,9}
- [25] *Explanatory definition in IPPC terms:* in the context of the IPPC, an **invasive¹⁰ alien species [CBD]** is an **alien species [CBD]** that by its **establishment** or **spread** has become injurious¹¹ to (or had a harmful impact on) **plants¹²**, or that by **risk analysis [CBD]** is shown to be potentially injurious to (or to have a potential harmful impact on) **plants**.
- [26] *Notes:*
- [27] ⁸ The question arises to what extent **invasive alien species [CBD]** can be equated with **quarantine pest**. Invasive alien species that directly or indirectly affect **plants** and that are absent from an area (or if present are limited in distribution and subject to official control) are often **quarantine pests** that are regulated by countries based on PRA. ISPM No. 11 (*Pest risk analysis for quarantine pests, including analysis of environmental risks and living modified organisms*) clarifies that **quarantine pests** may directly affect **plants** or indirectly in case of environmental risks via other components of ecosystems. Environmental and biodiversity consequences of the **introduction** and **spread** of such invasive alien species should be considered in a PRA in accordance with ISPM No. 11. Also, the **IPPC quarantine pest** concept can be applied to **organisms** that have never entered the **endangered area**. See also note 3.
- [28] ⁹ The CBD Guiding Principles also refer to **invasive alien species** as threatening “ecosystems, habitats or species”, rather than “biodiversity”.
- [29] ¹⁰ The CBD definition and its interpretation concern the whole term **invasive alien species** and do not provide a definition of “invasive” as such. Strictly speaking, they leave it open. But the interpretation has been made that the term “invasive” can be used only with respect to an **alien species**. For example, a distinction is being proposed in French between “invasif” and “envahissant” for **alien species** and species in general, respectively. Apart from the fact that this

cannot be done so easily in English, such a tendency to give words new artificial meanings is undesirable, and would be contrary to Glossary policy.

[30] ¹¹ This is an interpretation that tries to bring the definition of an **invasive alien species [CBD]** as close as possible to those of a **pest** and of a **quarantine pest**, taking particular account of the explanations in Supplement No. 2 of ISPM No. 5 on what is meant by “economic importance” in the **IPPC** context. This Supplement considers that, provided a species has a potential for **introduction** and **spread**, economic importance depends on a harmful impact on crops, or on the environment, or on some other specific value (recreation, tourism, aesthetics). The threat to biological diversity is accordingly covered.

[31] ¹² This interpretation is to be understood only in the context of the IPPC, i.e. of the protection of **plants**. It is clear that there are effects on biological diversity that do not concern **plants**, so that there are **invasive alien species [CBD]** that are not relevant to the **IPPC**.

[32] 3.4 Establishment

[33] *CBD definition:* the process¹³ of an alien species in a new habitat successfully producing viable offspring¹⁴ with the likelihood of continued survival

[34] *Explanatory definition in IPPC terms:* **establishment [CBD]** is the **establishment**, by successful reproduction, of an **alien species [CBD]** in a **habitat**¹⁵ in the **area** that it has **entered**.

[35] *Notes:*

[36] ¹³ **Establishment [CBD]** is a process, not a result. It seems that a single generation of reproduction can be **establishment [CBD]**, provided the offspring have a likelihood of continued survival (otherwise there would be a comma after “offspring”). The **IPPC** concept of “perpetuation for the foreseeable future” is not clearly expressed.

[37] ¹⁴ “Offspring” is not clearly understood. In ordinary English, it implies new individuals. In the definition, it is not clear how far it applies to **organisms** that propagate themselves vegetatively, so that the concept of an “individual” is not always easy to recognize (many **plants**, most fungi, other microorganisms). By using “perpetuation”, the **IPPC** avoids the question of reproduction or replication of individuals altogether. It is the species as a whole that survives. Even the growth of long-lived individuals to maturity could be considered to be perpetuation for the foreseeable future (e.g. plantations of a non-indigenous **plant**).

[38] ¹⁵ Survival in an entirely man-managed situation is not **establishment [CBD]** because this is not “in a habitat”.

[39] 3.5 Intentional introduction

[40] *CBD definition:* the deliberate movement and/or release by humans of an alien species outside its natural range

[41] *Explanatory definition in IPPC terms:* **intentional introduction [CBD]** is the deliberate import of a non-indigenous species, including its **release** into the environment.

[42] 3.6 Unintentional introduction

[43] *CBD definition:* all other introductions which are not intentional

[44] *Explanatory definition in IPPC terms:* **unintentional introduction [CBD]** is **entry** of a non-indigenous species with a traded **consignment**, which it **infests** or **contaminates**, or by some other human-mediated **pathway** (passengers’ baggage, vehicles, artificial waterways, etc.)¹⁶

[45] *Notes:*

[46] ¹⁶ This is the situation with which the IPPC is primarily concerned.

[47] 3.7 Risk analysis

[48] *CBD definition:* “risk analysis” refers to (1) the assessment of the consequences¹⁷ of the introduction and of the likelihood of establishment of an alien species using science-based information (i.e., risk assessment), and (2) to the identification of measures that can be implemented to reduce or manage these risks (i.e., risk management), taking into account socio-economic and cultural considerations¹⁸

[49] *Explanatory definition in IPPC terms:* **risk analysis [CBD]**¹⁹ is: (1) evaluation of the probability of **establishment** and **spread** within an area²⁰ of an **alien species [CBD]** that has entered that area, (2) evaluation of the associated potential undesirable consequences, and (3) evaluation and selection of phytosanitary measures to reduce the risk of such **establishment** and **spread**.

[50] *Notes:*

[51] ¹⁷ It is noted that all kinds of consequences may be considered.

[52] ¹⁸ It is not clear at what stages in the process of **risk analysis [CBD]** socio-economic and cultural considerations are taken into account (during assessment, or during management, or both). No interpretation can be offered in relation to ISPM No. 11 or supplement 2 of ISPM No. 5.

[53] ¹⁹ This explanation is based on the IPPC definitions of **pest risk assessment** and **pest risk management**, rather than on that of **pest risk analysis**.

[54] ²⁰ Following the considerations under note 3, it is unclear whether **Risk analysis [CBD]** is to be conducted prior to entry. However, it may be supposed (on the basis of CBD Guiding Principles 7 and 10) that the measures can include such restrictions, in which case the definition of **pest risk analysis [IPPC]** does apply.

[55] 4. Other Concepts

[56] The CBD Guiding Principles do not define other concepts, but they do use a number of terms that do not seem to be considered in the same light by the IPPC, or are not given a specific meaning under the IPPC. These include:

- border controls
- burden of proof
- control
- economic impact
- natural range or distribution
- precautionary approach
- provisional measures
- quarantine measures
- regulatory measures
- social impact
- statutory measures.

[57] 5. Reference

[58] *Guiding principles for the prevention, introduction and mitigation of impacts of alien species that threaten ecosystems, habitats or species*, 2002. Decision VI/23, UNEP/CBD/COP/6/20.